

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 4, 5, 10-14, and 15-18 are presently active in this case, Claim 6 canceled and Claims 4, 10-12, and 15-16 amended by way of the present amendment.

In the outstanding Official Action, the word “terminal” in the claims was objected to, and all pending claims were rejected under 35 U.S.C. § 112, second paragraph as being indefinite.

First, Applicants wish to thank Examiner Perilla and Primary Examiner Chieh for the August 18, 2004 personal interview at which time the outstanding issues in this case were discussed. During the interview, Applicants presented amendments and argument substantially as indicated in this response. While no formal agreement was reached, Examiner Perilla indicated that the amendments and arguments presented in the personal interview would overcome the outstanding rejection under 35 U.S.C. § 112, second paragraph.

With regard to the Response to Arguments and Amendments portion of the outstanding Official Action, this section states, essentially, that Applicant’s amendment filed February 13, 2004 indicates that Applicant found the rejections set forth in the August 13, 2003 Office Action “proper and persuasive.” However, as explained in the August 18, 2004 personal interview, Applicants have not made an admission that the rejections set forth in the August 13, 2003 Office Action are proper and persuasive. Specifically, as noted in the February 13, 2004 Amendment, Applicants decided to amend the claims to include the allowable subject matter noted in the August 13, 2003 Office Action “in order to expedite issuance of a patent in this case.” Therefore, Applicants have made no admission about the correctness or persuasiveness of the positions set forth in the August 13, 2003 Office Action.

With regard the objection to the word “terminal” in the claims, Applicants have now amended the claims to eliminate the use of this term. Therefore, the objection to the claims is believed to be overcome.

With regard to rejection 35 U.S.C. § 112, second paragraph, Applicants have amended the claims to overcome this rejection. Specifically, Applicants have amended the claims to recite “sampling” of the PLL frequency rather than “sweeping” the PLL frequency as suggested by the Examiner in the August 18, 2004 personal interview. Support for sampling the PLL frequency is provided at least at page 16, lines 26-29 and page 17, lines 20-25 of Applicant’s specification as originally filed. In addition, Applicants have amended Claims 4 and 10-12 to recite “sampling a plurality of times” as suggested by the Examiner. Thus, the rejection of Claims 4, 5 and 10-12 under 35 U.S.C. § 112, second paragraph, is believed to be overcome and no further rejection on this basis is expected.

With regard to Claims 15 and 16, Applicants do not wish to include the limitation of “sampling a plurality of times” in these claims at this time because Applicants believe that this limitation is not essential to the claimed invention. Specifically, as shown in Figure 3, a sampling of frequencies $F_0 - F_9$ occurs in the receiver during the time period T_1 when a single frequency of the transmit pattern is sent by the transmitter associated with the receiver. As seen in Figures 4 and 5, the sampling of all frequencies of the transmitter (shown as a sweep in Figure 3) allows the receiver to identify currently received signals that match the sampled frequencies. However, in the embodiment of Figures 3-5, only one of the received signals is the target signal corresponding to the single frequency sent by the transmitter associated with the receiver.

Thus, the receiver may also check the signal strength and/or modulation type of all signals received in one sampling to estimate the target received signal. The estimated target signal is then checked to determine if it is the actual target signal from the transmitter

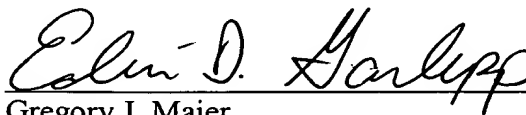
corresponding to the receiver. If the estimated signal is the actual target signal, then the receiver synchronizes with the transmitter by matching the target signal with the frequency hopping pattern stored in the receiver. Thus, the receiver can synchronize with the transmitter after a signal sampling (or a single sweep of frequencies) and it is not necessary to perform a plurality of samplings.

While Figure 3 shows a plurality of sampling periods, it is only necessary to repeat the sampling of frequencies F_0 - F_9 if the target signal cannot be identified from the first sweep. Moreover, a plurality of samplings can be used as shown in Figures 6A-6H in order to improve the accuracy of identifying the target signal. This use of a plurality of samplings is not required to estimate the receiving channel corresponding to the transmission channel as shown in Figures 3-5 of Applicant's specification. Therefore, as discussed in the August 18, 2004 interview, the limitation of "sampling a plurality of times" does not need to be added to Claims 15 and 16 in order to comply with 35 U.S.C. § 112, second paragraph.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application and the present application is believed to be in condition for formal allowance. An early and favorable actions is therefore respectfully requested.

Respectfully submitted,

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